

```
REPORT ZPROGRAM1 NO STANDARD PAGE HEADING.  
write / 'welcome to ABAP' color : 1,2,3,4,5,6,7.
```

```
write :/ sy-vline.
```

```
REPORT ZPATTERN2.
```

```
PARAMETER p_max type i.
```

```
data: ii type i value 1,  
      jj type i value 1.
```

```
ii = p_max.
```

```
WHILE ii >= 1 .  
  jj = 1.  
  WHILE jj <= ii.  
    write '*'.  
    jj = jj + 1.  
  ENDWHILE.  
  write /.  
  ii = ii - 1.  
ENDWHILE.
```

```
REPORT ZPATTERN5.
```

```
PARAMETER p_max type i.
```

```
data: ii type i ,  
      jj type i , kk type i, ll type i .
```

```
ii = p_max.
```

```
WHILE ii >= 1 .
```

```
  jj = 1.  
  WHILE jj < ii.  
    write " ".  
    jj = jj + 1.  
  ENDWHILE.
```

```
  kk = p_max.  
  WHILE kk > ii.  
    write '*'.  
    kk = kk - 1.
```

```
ENDWHILE.  
*write kk.
```

```
ll = p_max.  
WHILE ll >= kk.  
write '*'.  
ll = ll - 1.  
ENDWHILE.
```

```
write /.  
ii = ii - 1.  
ENDWHILE.
```

```
REPORT Z_PATTERN_123.
```

```
PARAMETER p_max type i.  
data : v_ii type i value 1, v_jj type i VALUE 1.
```

```
DO p_max TIMES.  
v_ii = SY-INDEX.  
Skip 1. "it skips one line in output"
```

```
DO v_ii TIMES.  
WRITE SY-index LEFT-JUSTIFIED.  
ENDDO.
```

```
ENDDO.
```

```
REPORT Z_EVEN_NUMBERS.  
PARAMETER p_no TYPE i.  
data :v_ii type i value 1, v_data type i , v_count type i .  
while v_count <= p_no.  
v_data = v_ii mod 2.  
if v_data = 0.  
write / v_ii.  
v_count = v_count + 1.  
ENDIF.  
v_ii = v_ii + 1.  
ENDwhile.
```

REPORT Z_EVEN_ODD_NUMBERS_SUM.

PARAMETER p_no TYPE i.

data :v_ii type i value 1, v_data type i , v_count type i , v_sum_even type i, v_sum_odd type i, v_jj type i value 1.

```
while v_count < p_no.  
v_data = v_ii mod 2.  
if v_data = 0.  
write / v_ii.  
v_count = v_count + 1.  
v_sum_even = v_sum_even + v_ii.  
ENDIF.  
v_ii = v_ii + 1.  
ENDwhile.  
uline.  
write :/ 'sum of even numbers', v_sum_even.  
uline.
```

```
uline.  
v_count = 0 .  
while v_count < p_no.  
v_data = v_jj mod 2.  
if v_data = 1.  
write / v_jj.  
v_count = v_count + 1.  
v_sum_odd = v_sum_odd + v_jj.  
ENDIF.  
v_jj = v_jj + 1.  
ENDwhile.
```

```
uline.  
  
write :/ 'sum of odd numbers', v_sum_odd.  
uline.
```

```
IF v_sum_even = v_sum_odd.  
write ' both sums are equal '.  
else.  
write 'Sums are not equal'.  
ENDIF.
```

REPORT Z_FACTORIAL_OF_ANY_NUMEBR.

PARAMETER p_no type i.
data v_fact type i value 1.

WHILE sy-index <= p_no.
v_fact = v_fact * sy-index.
ENDWHILE.

write v_fact.

REPORT Z_FIBONACCI_SERIES_OF_N_NO NO STANDARD PAGE HEADIN
G.

uline.

PARAMETER p_no TYPE I .

DATA : v_nm1 TYPE I , v_nm2 TYPE I value 1, v_nm3 TYPE I value 0.

DO p_no TIMES.
write : v_nm3 .
v_nm1 = v_nm2.
v_nm2 = v_nm3.

v_nm3 = v_nm1 + v_nm2.
write ','.
ENDDO.

write '.....'.

REPORT Z_SQUARE_N_NUMBERS.

PARAMETER P_NO TYPE I.

DATA V_SQ TYPE I.

WHILE SY-INDEX <= P_NO.
V_SQ = SY-INDEX * SY-INDEX.

```
WRITE :/ 'Square Of ', SY-INDEX , 'IS', V_SQ.  
ENDWHILE.
```
